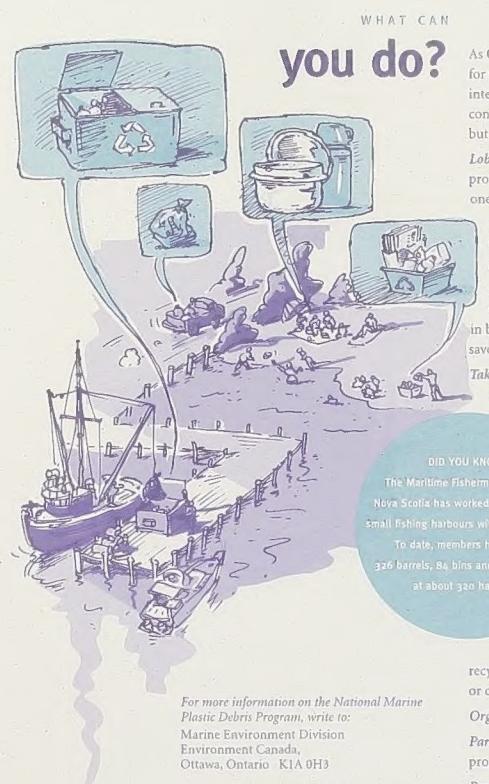


LITTER THREATENS TO SPOIL MUCH OF OUR ENVIRONMENT. CANADA'S OCEANS, ESTUARIES AND COASTS ARE NO EXCEPTION. MUCH OF THE LITTER IN OUR MARINE ENVIRONMENT IS PLASTIC DEBRIS, WHICH POSES SOME UNIQUE PROBLEMS. PLASTIC DEBRIS FOUND IN THE MARINE ENVIRONMENT INCLUDES ROPE, CONTAINERS, GROCERY BAGS, TRASH BAGS, CUP LIDS AND FOAM PIECES. THE SOURCES VARY, RANGING FROM BEACH USERS AND BOATERS TO COMMERCIAL VESSELS AND MUNICIPAL SEWAGE.

ONCE PLASTIC IS RELEASED, IT REMAINS AND ACCUMULATES, AND CAN KILL MARINE LIFE THROUGH ENTANGLEMENT, SNARING OR BEING MISTAKENLY EATEN. PEOPLE ARE AFFECTED WHEN PLASTICS TANGLE AND DAMAGE BOAT PROPELLERS, CLOG WATER INTAKES OR BLOCK PUMPING SYSTEMS. PLASTIC DEBRIS POSES SERIOUS PROBLEMS, BUT ALL OF US CAN CONTRIBUTE TO THE SOLUTIONS.

**DID YOU KNOW?**  
Foam cups, trash bags and other debris have been found in the most remote parts of Canada's coasts. One study on Sable Island, a remote island east of Nova Scotia, estimated eight tonnes of debris wash up each year—of this 92% is plastic.

Canada



Catalogue number En40-457/1-1994E  
ISBN 0-662-22333-0  
Cette publication est aussi disponible en français

## WHAT CAN you do?

As Canadians, it is our responsibility to care for the environment. It is also in our best interests. Canadians have already put their concern about the environment into action, but it is time to do more. So get involved: Lobby your marina or municipality to provide a trash bin or dumpster, or provide one yourself.

Reduce the waste you generate when you travel or go to the beach—pack a lunch in a reusable container.

Ask your local council how much is spent on maintenance and litter clean-up in beaches and parks. Show what could be saved by having garbage containers available.

Take your trash back to your home for recycling or disposal after boating or picnicking.

**DID YOU KNOW?**  
Avoid disposing of plastic waste down sewers.

Look at the garbage you throw away each day and ask yourself how you can reduce it. Is there an alternative product you could use? How about reusing some items?

Start your own waste reduction and recycling effort in your workplace, marina or community.

Organize a clean-up in your local community.

Participate in Environment Canada's research program.

Report ships or boaters who throw plastics overboard to your local Canadian Coast Guard office police.

Let's work together and become good Environmental Citizens!

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# MARINE PLASTIC DEBRIS

DID YOU  
THINK  
OF WATER  
AS BEING  
**crystal  
clear?**



Environment Canada Environnement Canada

Environmental  
Citizenship

## WHAT IS THE

# problem?

Plastics are in demand because they are durable, relatively inexpensive and lightweight. However, these same properties can create problems when they are not managed properly. Plastic does not break down readily and, therefore, tends to remain in the marine environment for three to five years or longer. Each year, the amount of plastic debris in the marine environment increases as more plastic is released into the environment and accumulates faster than it can break down. Tides, winds, storms and currents carry the plastic debris all over the world before depositing it on sea beds and coastlines.

The marine environment is especially sensitive to plastic debris. Wildfowl and sea creatures are hurt or killed when they mistake eat or become entangled in it. Death can result from a blocked digestive tract or from toxic by-products of digestion of some plastics, or through starvation from a false sense of being full. Once wildlife become entangled or snared in plastic debris, they face starvation, exhaustion, infection from wounds or drowning.

**DID YOU KNOW?**  
In 1990, volunteers with the B.C. Coastal Cleanup Campaign found more than 3,000 pieces of debris per kilometre on some beaches. Most of the debris, which was collected and sorted, was plastic and foam.

In addition to the visual degradation of shorelines, people are affected by marine plastic debris which gets caught in boat propellers, clogs water intakes or blocks pumping systems.

Repairs, lost fishing opportunities and rising insurance claims cost the fishing industry time and money. Communities may also end up paying ever-increasing costs for public maintenance and litter collection.

## WHAT IS THE

# solution?

Many vessels in use today were not designed with adequate capacity to store garbage. And often, tourists and recreational boaters do not bring their trash ashore. Providing facilities to recycle or dispose of wastes at marinas, wharves and beaches would reduce the plastic released into the oceans.

Reducing the amount of waste generated in the first place will also help. Both approaches are needed to address the problem. Facilities, however, need to be maintained. Even one trash can on a dock still needs to be emptied, the waste transported, then recycled or landfilled.

Major ports have adequate facilities, and those at small craft harbours and marinas continue to be improved but more are needed. Asking your marina to provide a trash bin, or providing one yourself, can help, or you can take your trash home for recycling or disposal. Reducing your own waste is another contribution you can make. Look at the trash you throw away — disposable cups for example — then look at alternatives, such as reusable cups.

Marine plastic debris comes from many sources, which include:

- careless beach users, boaters and tourists
- cargo vessels, passenger ships and commercial fishing vessels discharging garbage or accidentally losing cargo
- workers at construction projects or involved in industrial activities who thoughtlessly dispose of waste
- poor management practices at landfills, and municipal sewage outlets.

### DID YOU KNOW?

Fisheries and Oceans Canada estimates that there are between 100,000 and 500,000 pieces of debris floating in British Columbia's coastal waters.



**DID YOU KNOW?**  
Observers of the Atlantic fishing fleet have found whales, dolphins, seals, fish, turtles, seabirds and sharks entangled in nets and other plastics.

Two other substantial sources of plastic debris in the marine environment are municipal sewage and poor waste management practices.

Although precise figures are not known, a lot of plastic waste reaches the ocean from sewers. Similarly, poor waste management practices, such as uncovered landfills, release plastic wastes into the sea. Improving both practices will help reduce the amount of debris released.

By not throwing plastic waste down sewers you can help reduce the amount of plastic littering the oceans. If possible, start your own waste reduction and recycling efforts to reduce the garbage filling your community's landfill. These simple measures reduce the chance that debris could be released into the ocean.

### National Marine Plastics Debris Program

Environment Canada, under the Green Plan, set up a research and information program to address marine plastic debris. A national research project to determine more accurately the amount of debris in Canada's marine environment each year is being developed. This information will better target efforts to deal with the problem. At the same time, public education to increase awareness of the problem and encourage less harmful practices is ongoing.